

AMENDMENTS TO THE CLAIMS

The listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1. **(Currently Amended)** A surveying system for generating a computer model of a physical site, the system comprising:

a survey measurement device for determining a location of a selected feature relative to the survey measurement device; and

a computer-aided drafting (CAD) module ~~for~~configured to modeling the physical site while sending control commands to the survey measurement device, the CAD module including a CAD application program installed on a computer for receiving from the survey measurement device data related to the location of the selected feature and for creating a corresponding object in the computer model~~[[.]],~~ and

a bidirectional communication interface between the CAD application program and the survey measurement device for communicating the control commands from the CAD application program to the survey measurement device and for communicating the data related to the location of the selected feature from the survey measurement device to the CAD application program.

2. **(Original)** The surveying system of claim 1, wherein the computer includes an interactive display for enabling the operator to interact with the model at the survey site and

enabling the operator to control the survey measurement device by use of a graphical user interface associated with the CAD module.

3. **(Original)** The surveying system of claim 1, wherein the bidirectional communication interface includes a wireless link.
4. **(Original)** The surveying system of claim 1, wherein the bi-directional communication interface includes a cable link.
5. **(Original)** The surveying system of claim 1, wherein the survey measurement device comprises a total station.
6. **(Original)** The surveying system of claim 1, wherein the survey measurement device comprises a hand held laser measurement device.
7. **(Original)** The surveying system of claim 1, wherein the survey measurement device comprises a global positioning system based device.
8. **(Original)** The surveying system of claim 1, wherein the survey measurement device comprises a high definition scanner.
9. **(Original)** The surveying system of claim 1, wherein the location of the selected feature and the corresponding object are represented in two dimensions.

10. **(Original)** The surveying system of claim 1, wherein the location of the selected feature and the corresponding object are represented in three dimensions.

11–28. **(Canceled).**

29. **(Currently Amended)** A method of marking features at a site corresponding to objects in a computer model, the method comprising:

selecting, through interaction with a graphical user interface associated with a computer-aided drafting (CAD) module, an object in the computer model of the site, the object corresponding to a feature at the site;

transmitting real world coordinates of the feature from the CAD module to a survey measurement device;

the CAD module commanding the survey measurement device to indicate a location of the feature; and

marking the location.

30. **(Previously Presented)** The surveying system of claim 1, wherein the CAD module includes a graphical user interface that enables a user to select an object identifier from a drop-down menu in the graphical user interface.

31. **(Previously Presented)** The surveying system of claim 1, further comprising means for calculating error in measured feature locations.

32. **(Previously Presented)** The surveying system of claim 1, wherein the CAD module further includes means for distributing the error amongst a plurality of measured feature locations.

33. **(Previously Presented)** The surveying system of claim 1, wherein the CAD module includes means for creating layered models of the site and means for assigning attributes to the objects.

34. **(Previously Presented)** The surveying system of claim 33, wherein the CAD module determines attributes of the object in accordance with predetermined object choices.

35. **(Previously Presented)** The surveying system of claim 1, wherein the survey measurement device is robotically controlled and the CAD module sends a positioning command to the survey measurement device to cause the survey measurement device to measure the feature.

36. **(Previously Presented)** The method of claim 29, further comprising loading the CAD module with a set of plans or CAD files for the site.

37. **(Previously Presented)** The method of claim 36, further comprising setting up reference points at the site corresponding to reference objects in the computer model.

38. **(New)** The surveying system of claim 1, wherein the CAD module is configured to receive the data related to the location of the selected feature and begin creation of the computer model while the survey measurement device collects additional data related to the location of the selected feature.

39. **(New)** The surveying system of claim 1, wherein the survey measurement device is configured to communicate the data related to the location of the selected feature to the CAD application as measurements of the data related to the location of the selected feature are made by the survey measurement device.

40. **(New)** The surveying system of claim 1, wherein the CAD application is configured to receive control commands from an operator and control the survey measurement device using the control commands received from the operator.

41. **(New)** The surveying system of claim 1, wherein the CAD module is configured to control a position of the survey measurement device.

42. **(New)** The surveying system of claim 1, wherein the CAD application is configured to trigger operation of the survey measurement device.

43. **(New)** The surveying system of claim 1, wherein the CAD application is configured to sight the survey measurement device.

44. **(New)** The survey system of claim 43, wherein the CAD application is configured to reposition the survey measurement device to measure an additional feature at the survey site.

45. **(New)** The method of claim 29, wherein the survey measurement device is motorized and receives coordinates of a feature and automatically indicates the corresponding location at the site by sighting the survey measurement device at the selected point.

46. **(New)** A surveying system for generating a computer model of a physical site, the system comprising:

a survey measurement device for determining a location of a selected feature relative to the survey measurement device; and

a computer-aided drafting (CAD) module for modeling the physical site, the CAD module including a CAD application program installed on a computer for receiving from the survey measurement device data related to the location of the selected feature and for creating a corresponding object in the computer model, wherein the CAD module is configured to send position control commands to the survey measurement device to control a position of the survey measurement device; and

a bidirectional communication interface between the CAD application program and the survey measurement device for communicating commands from the CAD application program to the survey measurement device and for communicating the data related to the location of the selected feature from the survey measurement device to the CAD application program.

47. **(New)** The surveying system of claim 46, wherein the CAD module is configured to receive the data related to the location of the selected feature and begin creation of the computer model while the survey measurement device collects additional data related to the location of the selected feature.